

ETHNOMEDICINAL PLANTS USED BY INDIGENOUS TRIBES OF MAREDUMILLI MANDAL, EAST GODAVARI DISTRICT, ANDHRA PRADESH, INDIA

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ABSTRACT

In the present research, we investigated ethnomedical information from the Indigenous people of Maredumilli Mandal, East Godavari District, Andhra Pradesh, India. We interviewed the tribal people at their residences. As part of the oral interviews, specific questions were asked and the information provided by the informants was noted. For their health, the local tribes were familiar with most of the common diseases like pain, cuts, fever, headaches, wounds, headaches, and sprains. Additional field trips were conducted in different seasons in the same area to gather information and also to confirm the data already collected. A total of 140 ethnomedicinal plant species were collected from 125 genera of 62 families used to treat 52 diseases.

KEYWORDS: Ethnomedicine, Indigenous Tribe, Maredumilli, East Godavari District.

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INTRODUCTION

The study of traditional medicine is ethnomedicine. Ethnomedicine is older than civilization. It is part of the customs and traditions of a specific community and is now considered a new source of wisdom. Historically, the use of plants for treating human and animal diseases in India can be traced back to the Rigveda, the earliest scripture of the Hindus (4500 -1600 BC) (Jain, 1994). A multitude of tribal groups and very diversified vegetation make India a top country for ethnobotany knowledge. It is estimated that India is home to 17,500 angiosperm species alone (Jain, 2000). Glimpses of Indian Ethno botany (Jain, 1981) contributed to the development of ethno botanic studies in India. These studies are especially important for aboriginal people (Maheshwari and Singh, 1984). In the last decade, the Department of Environment and Forest has been consistently conducting research on ethnobiology, which has generated a lot of curiosity about tribal medicine. Since time immemorial the primitive societies have depended on plants remedies for the treatment of diseases and disorders (Singh et al. 2003). Indian ethnobotanical contributions have earned the nation a prominent place on the world map of ethnobotanical studies (Jain 1963, c; 1965; 1967a, b; 1991, b). A future role for ethnobotany may be to contribute to sustainable development and the conservation of biodiversity (Rajasekaran & Warren 1994). A large number of wild plants are useful for the tribal people for meeting their multifarious needs (Anonymous 1990). In Andhra Pradesh, ethnobotany has been well explored (Hemadri 1976, Ramarao and others 1999, R.V. Reddy and colleagues 1996, C.S. Reddy and colleagues 2000, Savitramma and others 2007, Krishnamurthy 1958, Sudhakar & Rao 1985, M.S. Raju 1996, Lakshmi & Lakshminarayana 2008). The present study aims to investigate the ethnomedicinal plants used by primitive tribes of Maredumilli Mandal and the practices they employ.

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STUDY AREA

East Godavari District is located between 16° 30' and 17° 00' N Latitude, and 81° 30' and 82° 30' E Longitude. The East Godavari District covers an area of 10,807 square kilometres. The population of the district is 51.515 lakhs comprising 60 Mandals.



Based on Aadhar estimates for 2021, the total Maredumilli population is 24,189. According to the 2011 Indian Census, the total Maredumilli population is 19,507 people, with 10,166 males living in this Mandal. The major tribal group inhabiting in this mandal is Kodareddy, Koya Dora, jatapu and valmiki etc. They have a rich traditional knowledge of their surrounding vegetation.

MATERIAL AND METHODS

An ethnomedical study was conducted by interviewing tribal elders and elderly people, herbal healers, tribal gurus, and vydhyas during different seasons during the years. Field trips were conducted several times between the years 2020 and 2021 in the district to document the ethnomedical knowledge of the tribal people in Maredumilli. Information was collected on plant species, parts, vernacular names, and methods of use of useful plants. The ethnomedicinal plants were identified with the help of regional floras (Gamble & Fischer, 1935 Herbarium specimens of the plants were deposited at the Botany Department of the Andhra University in Visakhapatnam, Andhra Pradesh, India. Data on ethnomedicine is arranged alphabetically by botanical names, family names, vernacular names, habits, useful parts, and diseases (Table 1).

RESULT AND DISCUSSION

The present study reveals that 140 species belonging to 125 genera and 62 families were employed for various purposes. According to a family-wise analysis of ethnomedicinal plants, the most dominant families include the Fabaceae with 10 species (7.14 %), followed by the Caesalpiniaceae with 8 species (5.71 %), the Apocynaceae and Rutaceae with 6 species (8.57), and the Euphorbiaceae. The Asteraceae contain 5 species (10.71%) and Zingiberaceae, Anacardiaceae, Lamiaceae, Moraceae, and Rutaceae contain 4 species (14.29%), Combretaceae, Liliaceae, Lythraceae, Musaceae, and Sapindaceae possess 3 species (10.71%), and Amaranthaceae, Araceae, Cucurbitaceae, Ebenaceae Lauraceae, Loganiaceae, Mimosaceae, Nyctaginaceae, Rhamnaceae, Sapotaceae and Sterculiaceae with 2 species each (15.71%) and remaining 33 families each one has single species (23.57%).

In the present study it is clearly evident that the local people use trees (40.00%) followed by herbs (31.43%), climbers (12.86 %), shrubs (12.87%) and parasites (2.86%). Depending upon the plant part used for medicinal purposes root constitutes the highest percentage (24.29 %) followed by stem bark (20.71 %), Leaf (17.86 %), whole plant (5.00 %), seed (5.71 %), tuber (5.71 %), fruit (5.71 %), Stem (1.43%), flowers (2.86 %), latex (1.43%), rhizome (2.14 %), gum (1.43%), perianth and corm (0.71% each). An intensive survey and repeated personal interviews in different pockets resulted in coming across 52 diseases in the area. The most common diseases afflicting tribal groups are ascertained by consulting local doctors. The most common ailments are Abdomina swelling, Anasarca, Antifertility, Blisters, Blood purification, Body pain, Breast pain, Cholera, Fertility, Gonorrhoea, Headache, HIV, Impotency, Leucoderma, Lice, Peptic ulcer, Snake bite, Sterility, Wounds, Abortion, Acidity, Antidote, Antifertility, Bronchitis, Burns, Conception, Cuts, Dandruff, Diabetes, Dyspepsia, Fractures, Hydrocele, Stomachache, Swellings, Anaemia, Blood pressure, Conjunctivitis, Cough, Dysmenorrhoea, Fever, Jaundice, Anthelmintic, Chest pain, Cold, Epilepsy, Leucorrhoea, Boils, Rheumatoid Arthritis, Dysentery, Diarrhoea and Asthma. For their healthcare system, the tribal people of East Godavari still rely on traditional medicine. Various kinds of valuable drugs have been discovered through documentation of traditional knowledge on health care practices. (Iwu 1994, Cox and Ballick 1994, Fabricant and Fransworth 2001, France et al 1994). The developing nations approximately 80% of the population dependant on ethnomedicine are seeking health care (Farnsworth et.al 1985).

CONCLUSIONS

Industrialization, urbanization, modernization and the consequent developmental activities on one side and acculturation of the ethnic societies on the other have set in motion causing destruction of forests and devastation of ethnobotanical knowledge. It is high time now, that all the Governmental and Non-Governmental Organizations should redouble their efforts to conserve plants of potential economic value, particularly medicinal plants and the ecosystems they inhabit. The tribal people of the district have very good ethnomedicinal knowledge on the use of medicinal plants. In rural areas, such types of knowledge of ethnomedicinal plants were restricted to a few persons. The harvesting of the ethnomedicinal plants by the maximum use of underground parts from the wild may lead to the extinction of the species in the future.

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REFERENCES

- 1. Jain, S. K., (Ed.) 1981. Glimpses of Indian ethnobotany. Oxford and IBH Publishing Co., New Delhi.
- 2. Jain, S. K., 1963c. Magico-religious beliefs about plants among the adivasis of Bastar. Q. J. Myth. Soc., 54(3): 73-94.
- 3. Jain, S. K., 1965. Medicinal plant-lore of the tribals of Bastar. Econ. Bot., 19: 236-250.
- 4. Jain, S. K., 1967a. Plants in Indian medicine and. folklore associated with healing of bones. Ind. J. Orthopaedics, 95: 104.
- 5. Jain, S. K., 1967b. Ethnobotany. Its scope and study. Ind. Mus. Bull., 2: 39-43.
- 6. Jain, S. K., (Ed.), 1991b. Dictionary of Indian Ethnobotany, Deep Publications, New Delhi.
- 7. Jain, S.P. and H.S. Puri 1994. An Ethno-Medico-Botanical survey of Parbati Valley in Himachal Pradesh. J. Econ. Taxon. Bot. 18: 321 327.
- 8. Jain, S.K. 2000. Global resurgence of ethnomedicobotany-The Indian Scene. J. Trop. Med. Plants 1: 75-81.
- 9. Maheswari, J. K. and J. P. Singh, 1984. Contribution to the ethnobotany of Bhoxa tribe of Bijnor and Pauri Garhwal District, U.P. J. Econ. Tax. Bot., 5(2): 253-259.

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- 10. Iwu MM. African Medicinal Plants in the Search for New Drugs Based on Ethnobotanical Leads. Ciba Found Symp.1994; 185,116 26.
- 11. Cox PA, Ballick MJ. The ethnobotanical approach to drug discovery. Scientific American. 1994; (June), 82–87. Fabricant DS, Farnsworth NR. The Value of Plants Used in Traditional Medicine for Drug Discovery. Environ Health Perspect. 2001; 109(suppl 1):69–75.
- 12. Prance GT, Chadwick DJ, Marsh J. Ethnobotany and the search for new drug discovery. In: Chadwick DJ, Marsh J, editors. Ethnobotany and the Search for New Drugs. England: John Wiley and Sons; 1994. p. 185.
- 13. Farnsworth NR, Akerele O, Bingel AS. Medicinal plants in therapy. Bulletin of world health organization. 1985; 63:965–81.
- 14. Rajasekaran, B & D.M. Warren 1994. Indigenous knowledge for socio economic development and biodiversity conservation: the Kolli hills. Indigenous Knowledge & Development Monitor 2: 13-17.
- Anonymous, 1990. Ethnobiology in India: A Status Report. Ministry of Environment & Forests, Govt. of India, New Delhi, 1

 68 pp.
- 16. Hemadri, K. 1976. Procurement of raw drugs in Andhra Pradesh. Nagarjun 20: 7-13.
- 17. Ramarao, N., A. Rajendran & A.N. Henry 1999. Phyto-zootherapy of the tribes of Andhra Pradesh. J. Econ. Tax. Bot. 23: 331-335.
- 18. Reddy, R.V., N.V.N. Lakshmi & R.R.V. Raju 1996. Traditional crude drug resources used anti-fertility in Cuddapah hills. J. Swamy Bot. Club 13: 67-69.
- 19. Reddy, C.S. & V.S. Raju 2000. Folklore biomedicine for common veterinary diseases in Nalgonda district, Andhra Pradesh. Ethnobotany 12: 113-117.
- 20. Savitramma, N., Ch. Sulochana & K.N. Rao 2007. Ethnobotanical survey of plants used to treat asthma in Andhra Pradesh, India. J. Ethnopharmacology Vol. 113 (1), pp. 54-61.
- 21. Krishnamurthy, V.V. 1958. The tribal people of Rampa and Gudem agency of Godavari Lower Division. Indian Forester 84: 428-431.
- 22. Sudhakar, S. & R.S. Rao 1985 Medicinal plants of East Godavari district, Andhra Pradesh, J. Econ. Tax.Bot. 7: 399-406.
- 23. Raju, M.S. 1996. Native plants in snakebite and other poisonous animals among the tribals of East Godavari district, Andhra Pradesh. Aryavaidyan 9: 251-255.
- 24. Lakshmi, M.K & K. Lakshminarayana 2008. Some traditional medicinal plants used by jatapu tribe of Vizianagaram district, Andhra Pradesh. International Seminar on Medicinal Plants and Herbal products. 7th 9th March. Page. 63.
- 25. Vijayakumar, Subramaniyan, Sellan Chandrasekar, and Srinivasan Prabhu. "Screening of ethnomedicinal plants for antibacterial activity." International Journal of Medicine and Pharmaceutical Sciences 3.2 (2013): 11-20.
- 26. Jahan, A. F. I. F. A., and M. J. Reddy. "Syzygium cumini: A plant with high medicinal and nutritional value." International Journal of Botany and Research 8.6 (2018): 1-4.
- 27. De, Lakshman Chandra. "Breeding of medicinal and aromatic plants-an overview." International journal of botany and research 7.2 (2017): 25 34 (2017).
- 28. Irfan, Muhammad, et al. "Ethnomedicinal Uses of the Plants of Tehsil Laalqilla, District Lower Dir, Khyber Pakhtunkhwa, Pakistan." J. Appl. Environ. Biol. Sci 8.6 (2018): 61-66.
- 29. Malik, Mushtaq Ahmad, et al. "Rheum emodi as valuable medicinal plant." Intern J General Medic Pharmacy 5.4 (2016): 35-44.

Table 1: Ethnomedicinal plants used for Indigenous Tribes of Maredumilli, East Godavari District

S.No	Scientific Name	Family	Habit	Part Used	Disease
1	Acalypha indica	Euphorbiaceae	Herb	Leaf	Jaundice
2	Achyranthes aspera	Amaranthaceae	Herb	Seed	Antidote
3	Acorus calamus	Araceae	Herb	Rhizome	Cold
4	Aegle marmelos	Rutaceae	Tree	Stem Bark	Cholera
5	Alangium salvifolium	Alangiaceae	Tree	Leaf	Rheumatoid Arthritis
6	Alstonia venenata	Apocynaceae	Shrub	Stem Bark	Anthelmintic
7	Amaranthus spinosus	Amaranthaceae	Herb	Root	Dyspepsia
8	Amarphophallus paeoniifolius	Araceae	Herb	Corm	Bone fractures
9	Aristolochia indica	Aristolochiaceae	Climber	Root	Diarrhoea
10	Asparagus racemosus	Liliaceae	Herb	Tuber	Bronchitis
11	Azima tetracantha	Salvadoraceae	Shrub	Root	Asthma

Table 1 contd.,						
12	Barringtonia acutangula	Barringtoniaceae	Tree	Leaf	Headache	
13	Bauhinia racemosa	Caesalpiniaceae	Tree	Stem Bark	Asthma	
14	Bauhinia vahlii	Caesalpiniaceae	Climber	Root	Dysentery	
15	Boerhavia diffusa	Nyctaginaceae	Herb	Whole Plant	HIV	
16	Bridelia retusa	Euphorbiaceae	Tree	Stem Bark	Chest pain	
17	Buchanania lanzan	Anacardiaceae	Tree	Stem Bark	Boils	
18	Butea monosperma	Fabaceae	Tree	Stem Bark	Antifertility	
19	Caesalpinia bonduc	Caesalpiniaceae	Shrub	Seed	Abortion	
20	Calotropis gigantea	Asclepiadaceae	Shrub	Root	Epilepsy	
21	Canavalia gladiata	Fabaceae	Climber	Root	Diarrhoea	
22	Capparis zeylanica	Capparidaceae	Shrub	Root	Earache	
23	Cardiospermum halicacabum	Sapindaceae	Climber	Leaf	Burns	
24	Cassia absus	Caesalpiniaceae	Herb	Flowers	Asthma	
25	Cassia alata	Caesalpiniaceae	Herb	Flowers	Asthma	
26	Cassia occidentalis	Caesalpiniaceae	Herb	Root	Anthelmintic	
27	Cassytha filiformis	Lauraceae	Parasite	Whole Plant	Hydrocele	
28	Celastrus paniculatus	Celastraceae	Climber	Root Bark	Leucorrhoea	
29	Chlorophytum arundinaceum	Liliaceae	Herb	Tuber	Hydrocele	
30	Chloroxylon swietenia	Flindersiaceae	Tree	Stem Bark	Cold	
31	Cleistanthus collinus	Euphorbiaceae	Tree	Stem Bark	Leucorrhoea	
32	Curcuma longa	Zingiberaceae	Herb	Rhizome	Rheumatoid Arthritis	
33	Cuscuta reflexa	Cuscutaceae	Parasite	Whole plant	Epilepsy	
34	Cyperus rotundus	Cyperaceae	Herb	Tuber	Diarrhoea	
35	Dalbergia latifolia	Fabaceae	Tree	Stem Bark	Fever	
36	Datura metal	Solanaceae	Shrub	Root	Asthma	
37	Dendrophthoe falcata	Loranthaceae	Parasite	Stem Bark	Asthma	
38	Desmodium gangeticum	Fabaceae	Herb	Leaf	Acidity	
39	Dillenia pentagyna	Dilleniaceae	Tree	Stem Bark	Rheumatoid Arthritis	
40	Dioscorea bulbifera	Dioscoreaceae	Climber	Tuber	Sterility Sterility	
41	Diospyros chloroxylon	Ebenaceae	Tree	Leaf	Diarrhoea	
42	Diospyros melanoxylon	Ebenaceae	Tree	Stem Bark	Cold	
43	Eclipta prostrata	Asteraceae	Herb	Whole Plant	Acidity	
44	Elephantopus scaber	Asteraceae	Herb	Root	Anthelmintic	
45	Elytraria acaulis	Acanthaceae	Herb	Tuber	Anasarca	
46	Erythrina suberosa	Fabaceae	Tree	Root	Dysentery	
47	Eucalyptus globulus	Myrtaceae	Tree	Leaf	Antiseptic	
48	Eugenia bracteata	•	Shrub	Root	Dysentery	
49	Euphorbia hirta	Myrtaceae Euphorbiaceae	Herb	Leaf	Dysentery	
50	Euphoroid niria Evolvulus alsinoides	Convolvulaceae	Herb	Leaf	Jaundice	
51	Ficus benghalensis	Moraceae	Tree	Latex	Boils	
52	Ficus racemosa	Moraceae		Stem Bark	Diarrhoea	
53			Tree Tree	Stem Bark	Diarrhoea	
54	Ficus religiosa Flacourtia indica	Moraceae		Root		
		Flaucortiaceae	Shrub		Bronchial allergy	
55	Garuga pinnata	Burseraceae	Tree	Stem Bark	Stomachache	
56	Gloriosa superba	Liliaceae	Herb	Leaf	Asthma	
57	Glycosmis pentaphylla	Rutaceae	Shrub	Fruit	Chartagin	
58	Gmelina arborea	Verbenaceae	Tree	Stem Bark	Chest pain	
59	Gmelina asiatica	Verbenaceae	Tree	Fruit	Dandruf	
60	Grewia tiliifolia	Tiliaceae	Tree	Leaf	Lice	
61	Gymnema sylvestre	Asclepiadaceae	Climber	Root	Snake bite	
62	Haldinia cordifolia	Rubiaceae	Tree	Stem Bark	Leucorrhoea	

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Table 1 contd.,						
63	Helicteris isora	Sterculiaceae	Shrub	Fruit	Dysentery	
64	Hemidesmus indicus	Asclepiadaceae	Climber	Root	Diarrhoea	
65	Hemionitis arifolia	Adiantaceae	Herb	Whole Plant	Common problems	
66	Holarrhena pubescens	Apocynaceae	Shrub	Stem Bark	Asthma	
67	Holoptelia integrifolia	Ulmaceae	Tree	Root	Abortion	
68	Hugonia mystax	Linaceae	Shrub	Root	Swellings	
69	Hybanthus ennaespermus	Violaceae	Herb	Whole Plant	Impotency	
70	Ichnocarpus friutiscens	Apocynaceae	Climber	Root	Epilepsy	
71	Lagerstroemia parviflora	Lythraceae	Tree	Leaf	Dysentery	
72	Lannea coromandelica	Anacardiaceae	Tree	Stem Bark	Cuts	
73	Lawsonia inermis	Lythraceae	Shrub	Leaf	Jaundice	
74	Leonotis nepetiifolia	Lamiaceae	Herb	Inflorescence	Breast pain	
75	Limonia acidissima	Rutaceae	Tree	Root	Rheumatoid Arthritis	
76	Litsea glutinosa	Lauraceae	Tree	Seed	Rheumatism	
77	Lygodium flexuosum	Lygodiaceae	Herb	Root	Anaemia	
78	Madhuca indica	Sapotaceae	Tree	Flowers	Asthma	
79	Mallotus philippensis	Euphorbiaceae	Tree	Fruit	Anthelmintic	
80	Mangifera indica	Anacardiaceae	Tree	Gum	Boils	
81	Manilkara hexandra	Sapotaceae	Tree	Stem Bark	Body pain	
82	Memecylon umbellatum	Melastomataceae	Tree	Root Bark	Leucorrhoea	
83	Mimosa pudica	Mimosaceae	Herb	Root	Epilepsy	
84	Momordica charantia	Cucurbitaceae	Climber	Fruit	Diabetes	
85	Moring oleifera	Moringaceae	Tree	Leaf	Blood pressure	
86	Mucuna pruriense	Fabaceae	Climber	Root	Dysmenorrhoea	
87	Murraya paniculata	Rutaceae	Shrub	Root	Anaemia	
88	Musa paradasiaca	Musaceae	Herb	Leaf	Cough	
89	Naravelia zeylanica	Ranunculaceae	Climber	Leaf	Cold	
90	Naringi crenulata	Rutaceae	Tree	Stem Bark	Dysentery	
91	Nelumbo nucifera	Nelumbonaceae	Herb	Perianth	Conjunctivitis	
92	Nyctanthus arbor-tristis	Nyctanthaceae	Tree	Seed	Dandruf	
93	Ocimum basilicum	Lamiaceae	Herb	Seed	Diarrhoea	
94	Ocimum tenuiflorum	Lamiaceae	Herb	Leaf	Conjunctivitis	
95	Olax scandens	Olacaceae	Climber	Stem Bark	Anaemia	
96	Oroxylum indicum	Bignoniaceae	Tree	Root Bark	Antifertility	
97	Orthosiphon rubicundus	Lamiaceae	Herb	Root	Diarrhoea	
98	Pavetta indica	Rubiaceae	Shrub	Leaf	Blisters	
99	Pedalium murex	Pedaliaceae	Herb	Leaf	Dysmenorrhoea	
100	Pergularia daemia	Asclepiadaceae	Climber	Leaf	Bone fractures	
101	Phoenix sylvestris	Arecaceae	Tree	Root	Asthma	
102	Polyalthia cerasoides	Annonaceae	Tree	Gum	Chest pain	
103	Pongamia pinnata	Fabaceae	Tree	Leaf	Cough	
104	Pterocarpus marsupium	Fabaceae	Tree	Stem Bark	Conception	
105	Pueraria tuberosa	Fabaceae	Climber	Tuber	Peptic ulcer	
106	Rauvolfia serpentina	Apocynaceae	Herb	Root	Fever	
107	Rauvolfia tetraphylla	Apocynaceae	Herb	Root Bark	Blood pressure	
108	Rubia cordifolia	Rubiaceae	Herb	Root	Stomachache	
109	Sapindus emarginatus	Sapindaceae	Tree	Fruit	Asthma	
110	Schleichera oleosa	Sapindaceae	Tree	Stem Bark	Blood purification	
111	Scoparia dulcis	Schrophulariaceae	Herb	Root	Dysentery	
112	Semecarpus anacardium	Anacardiaceae	Tree	Seed	Abdomina swelling	

Table 1 contd.,						
113	Sida acuta	Malvaceae	Herb	Root	Wounds	
114	Stachytarpheta jamaicansis	Verbenaceae	Herb	Plant	Antidote	
115	Sterculia urens	Sterculiaceae	Tree	Root Bark	Fertility	
116	Streblus asper	Moraceae	Tree	Root	Rheumatoid Arthritis	
117	Strychnos potatorum	Loganiaceae	Tree	Seed	Blood pressure	
118	Strycnos nuxvomica	Loganiaceae	Tree	Stem Bark	Asthma	
119	Syzygium cumini	Myrtaceae	Tree	Stem Bark	Burns	
120	Tamarindus indica	Caesalpiniaceae	Tree	Stem Bark	Asthma	
121	Tarenna asiatica	Rubiaceae	Shrub	Stem Bark	Dysentery	
122	Tephrosia hirta	Fabaceae	Herb	Root	Fever	
123	Terminalia arjuna	Combretaceae	Tree	Stem Bark	Asthma	
124	Terminalia bellirica	Combretaceae	Tree	Fruit	Asthma	
125	Terminalia chebula	Combretaceae	Tree	Fruit	Cough	
126	Trichosanthes tricuspidata	Cucurbitaceae	Climber	Tuber	Dysmenorrhoea	
127	Tridax procumbens	Asteraceae	Herb	Leaf	Cuts	
128	Tylophora indica	Asclepiadaceae	Climber	Leaf	Asthma	
129	Vanda tassellata	Orchidaceae	Herb	Root	Fractures	
130	Vernonia cinerea	Asteraceae	Herb	Seed	Leucorrhoea	
131	Viscum articulatum	Loranthaceae	Parasite	Stem	Fractures	
132	Vitex negundo	Verbenaceae	Shrub	Leaf	Swellings	
133	Woodfordia fruticosa	Lythraceae	Shrub	Flowers	Diarrhoea	
134	Wrightia tinctoria	Apocynaceae	Tree	Latex	Asthma	
135	Xanthium strumarium	Asteraceae	Herb	Root	Boils	
136	Xylia xylocarpa	Mimosaceae	Tree	Root Bark	Gonorrhoea	
137	Zingiber officinale	Zingiberaceae	Herb	Rhizome	Dyspepsia	
138	Zingiber roseum	Zingiberaceae	Herb	Tuber	Leucoderma	
139	Ziziphus oenoplea	Rhamnaceae	Climber	Root	Chest pain	
140	Ziziphus rugosa	Rhamnaceae	Tree	Leaf	Diabetes	

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